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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/030,231	06/20/2002	Philippe Roch	045636-5052	5815

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WASHINGTON, DC 20004

EXAMINER

MINNIFIELD, NITA M

ART UNIT	PAPER NUMBER
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1645

DATE MAILED: 09/25/2003

11

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/030,231

Applicant(s)

ROCH ET AL.

Examiner

N. M. Minnifield

Art Unit

1645

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 03 July 2003.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1,3,4,6-8 and 11-18 is/are pending in the application.
- 4a) Of the above claim(s) 4,6-8 and 11-18 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1 and 3 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☒ Claim(s) 4,6-8 and 11-18 are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☒ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☒ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892) 2 sheets
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 3.
- 4) ☐ Interview Summary (PTO-413) Paper No(s) \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## **DETAILED ACTION**

1. Applicants' amendment filed July 3, 2003 is acknowledged and has been entered. Claim 2 has been canceled. Claims 1, 2, 11 and 18 have been amended. Claims 1, 3, 4, 6-8 and 11-18 are now pending in the present application.

2. Applicant's election with traverse of Group I, claims 1-3 and SEQ ID NO: 5 and 6, in Paper No. 10 is acknowledged. The traversal is on the ground(s) that Applicants believed that all sequences as set forth in claim 1 are properly examined as a whole because the sequence (I) (SEQ ID NO: 5 is generic and represents the common technical feature linking the subject matter to all the pending claims.

Applicants have asserted that since the claims have been amended the peptides disclosed by Charlet et al do not correspond to those encompassed by SEQ ID NO:

5. Applicants have asserted that Group II, III and IV share the common technical feature of the amino acid sequence of Group I and that Groups I-IV are linked so as to form a single general inventive concept under PCT Rule 13.1, since the special technical feature, SEQ ID NO: 5, is patentable over the prior art.

Applicants have asserted that Groups II, III and IV should be joined and examined with the claims of Group I in view of the presence of the single general inventive concept.

This is not found persuasive because the analysis of novelty under PCT Article 33(2) is based on the claims as originally presented. The inventions listed as Groups I-IV do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, they lack the same or corresponding special technical features for the following reasons: Group I lacks novelty under PCT

Article 33(2) as being anticipated by Charlet et al, 1996 (JBC 271/36:21808-21813), which discloses an antimicrobial peptide (antibacterial and antifungal peptide) from a mussel. Group I is the main invention in this application and it lacks novelty, therefore the other claims are not so linked by a special technical feature within the meaning of PCT Rule 13.2 so as to form a single inventive concept. The restriction requirement is proper.

The requirement is still deemed proper and is therefore made FINAL.

3. Claims 6-8 and 11-18 have been withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected invention, there being no allowable generic or linking claim. Applicant timely traversed the restriction (election) requirement in Paper No. 10.

4. The disclosure is objected to because it contains an embedded hyperlink and/or other form of browser-executable code. Applicant is required to delete the embedded hyperlink and/or other form of browser-executable code. See MPEP § 608.01.

5. The use of the trademarks has been noted in this application. It should be capitalized wherever it appears and be accompanied by the generic terminology.

Although the use of trademarks is permissible in patent applications, the proprietary nature of the marks should be respected and every effort made to prevent their use in any manner, which might adversely affect their validity as trademarks.

6. Claims 1 and 3 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The claims are vague and indefinite in the recitation of “molecular mass”; the claim does not defined how this is determined. The claims are vague and indefinite in the recitation of the term “approximately”; what are the metes and bounds of this term?

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

8. Applicant cannot rely upon the foreign priority papers to overcome this rejection because a translation of said papers (no certified copy of English translation of FRANCE 99/08858) has not been made of record in accordance with 37 CFR 1.55. See MPEP § 201.15.

9. Claims 1 and 3 are rejected under 35 U.S.C. 102(a) as being anticipated by Mitta et al, 2000 (J. Cell Science, 113:2759-2769).

The claims are directed to an isolated antimicrobial peptide, named myticin, from a bivalve mollusk, molecular mass of 4.5 kDa, pI of 8.7 and 8 cysteine residues, and wherein said peptide further comprises the sequence of SEQ ID NO: 5 or 6.

Mitta et al discloses an antimicrobial peptide from mussels, *Mytilus galloprovincialis* (abstract; materials and methods; Table 1). Mitta et al discloses

the amino acid sequence of the antimicrobial peptides as set forth in SEQ ID NO: 5 and 6 (see Table 1, p. 2760). The prior art anticipates the claimed invention.

10. Claims 1 and 3 are rejected under 35 U.S.C. 102(a) as being anticipated by Mitta et al 2000 (Developmental and Comparative Immunology, 24:S1:S20, Meeting abstract, July 3-6, 2000).

Mitta et al discloses an antimicrobial peptide isolated from mussels, *M. galloprovincialis*. The antimicrobial peptide is cysteine rich and has a molecular mass of 4 kDa.

It is noted that the antimicrobial peptide of the cited prior art references were not characterized as having specific amino acid sequences, or as having a specific pI. However, the mere discovery of an amino acid sequence, molecular weight or other characterizing features of an antimicrobial peptide, **which antimicrobial peptide is taught by the prior art**, imparts neither novelty nor unobviousness to the protein. Further, given that the antimicrobial peptide was known in the prior art, one of ordinary skill in the art would have been motivated to identify the amino acid sequence, molecular weight and any other characteristics of the antimicrobial peptide since antimicrobial peptides are routinely characterized in this manner. Therefore, the antimicrobial peptides of the reference appear to be consistent with those claimed with the various identifying characteristics inherent in them.

Since the Office does not have the facilities for examining and comparing applicants' antimicrobial peptide with the antimicrobial peptide of the prior art, the burden is on applicant to show a novel or unobvious difference between the claimed product and the product of the prior art (i.e., that the antimicrobial peptide of the prior art does not possess the same material structural and functional

characteristics of the claimed antimicrobial peptide). See In re Best, 562 F.2d 1252, 195 USPQ 430 (CCPA 1977) and In re Fitzgerald et al., 205 USPQ 594.

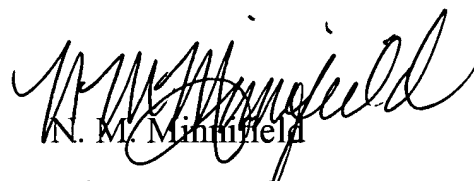
11. No claims are allowed.

12. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to N. M. Minnifield whose telephone number is 703-305-3394. The examiner can normally be reached on M-F (8:00-5:30) Second Friday Off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lynette R.F. Smith can be reached on 703-308-3909. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0196.



Primary Examiner

Art Unit 1645

NMM

September 12, 2003